

# Migrating from ASV to HP OpenVMS CIFS

This migration procedure is provided to help migration of User and Share Information from ASV PDC to HP OpenVMS CIFS PDC. The intended audience is a System Administrator for ASV and CIFS servers. ASV must be shutdown for different migration activities; system administrators may combine these activities together to minimize system downtime.

## Requirements

ASV to CIFS migration support files are present in SAMBA\_ROOT:[UTILS]CIFSE3010\_MIGRATION.BCK. Extract this file to get the following:

- import.exe
- useradd.com
- userdel.com
- importpwd.exe
- migration.txt

For ASV specific patches and related utilities contact your Local HP Support. The patch indent is SAMBA\_MIGRATION.BCK. It contains the following files:

- pwrk\$lmsrv.exe
- pwrk\$lmapihr.exe
- exportpwd.exe

## Migration of Share Information

As “sharedb” is a separate file on ASV and not a part of SAM database, it is stored on each ASV installation locally. The following procedure assumes that the shared paths and locations remain valid and available even to the new CIFS installation:

1. ASV must be shutdown to extract the share information as the “sharedb” file is locked and some of the utilities used to dump its contents would fail.  

```
$ @SYS$STARTUP:PWRK$SHUTDOWN
```
2. Using the utility “lmshare” provided by ASV, dump the share information into a temporary text file.  
  
For example,  

```
pipe lmshare -l > share_info.txt
```
3. Now ASV can be restarted for its normal working.  

```
$ @SYS$STARTUP:PWRK$STARTUP
```
4. Copy this temporary file to the target CIFS installation in ASCII mode.
5. CIFS stores its share info in the SMB.CONF file. A utility program is provided that parses the dumped share information file and identifies the user share information from it. This program also populates the SMB.CONF in the specified format to include the shares. The path names of the shares so created by this utility must be manually reviewed to confirm that the shared locations exist on target machine. To use this utility define a foreign symbol as shown below:

```
$ IMPORT := "$<location-of-unpacked-migration-bck>IMPORT.EXE"
```

```
$ IMPORT <share-info-dump-file> <SMB.CONF>
```

**Note:** Please specify the complete path for both files when running this command.

For example,

```
$ IMPORT <location-of-share-info-text-file>SHARE_INFO.TXT  
SAMBA_ROOT: [LIB]SMB.CONF
```

6. This will complete the share migration and also provides log entries in *migration.log* file which is created in the current directory.

**Note:** Once the migration is complete, please do a manual review of the paths for shared locations in SMB.CONF for their existence on target installation.

## SAM Migration

The following configuration and procedure should be followed for migrating SAM from an existing ASV installation to CIFS. It is recommended that you clean any existing SAM database on CIFS server before starting migration. This procedure should be run with system privileged account on VMS (for ER use "system" account).

1. The preferred password backend on HP OpenVMS CIFS for evaluation release is tdbsam. The SMB.CONF entry in the [global] section must contain the following to make tdbsam as password backend:

```
passdb backend = tdbsam
```

2. Edit the SMB.CONF file to temporarily change the following parameters so that the CIFS server functions as a BDC for the purpose of migration.

```
workgroup          = <old_domain_name_for_ASV>  
domain master      = no
```

3. To add or modify the accounts on host system, you need some VMS specific scripts, these are provided with migration utility. To make CIFS aware of these, add the following lines in SMB.CONF:

```
add user script = @<location-of-unpacked-migration-bck>useradd.com %u  
delete user script = @<location-of-unpacked-migration-bck>userdel.com %u  
add machine script = @<location-of-unpacked-migration-bck>useradd.com %u
```

- These Scripts need to be reviewed by administrators to see if they adhere to the local policies applicable to SYSUAF account creation.
- Make sure that the default template account SAMBA\$TMPLT exists in SYSUAF. Modify this account to put desired restrictions and privileges on all users to be migrated through this procedure.
- No home directories for any migrated user are created by this procedure.

- A unique UIC must be assigned to every CIFS user added in SYSUAF. This is achieved by defining certain logicals. These logicals will be used by the useradd script to assign a unique UIC to every account created in SYSUAF. These logicals will be used to construct UIC and to add rights identifier. The "samba\$next\_users\_uid" is incremented depending on the number of users being migrated.

```
$ DEFINE SAMBA$NEXT_USERS_GID 445 /SYSTEM
```

```
$ DEFINE SAMBA$NEXT_USERS_UID 2 /SYSTEM
```

**Note:** The logicals should be assigned octal numbers ONLY.

4. A patch needs to be applied on ASV PDC before executing the following command. This is necessary because you use an automated procedure in CIFS that makes a series of rpc calls to the existing domain controller to retrieve the SAM information. The new server patch enables these RPC commands which are necessary for synchronization with CIFS. Shutdown the ASV PDC and copy the following images. The base code for these images has been taken from ASV 7.3A ECO 4 base kit.

```
PWRK$LMAPISHR.EXE to SYS$COMMON:[SYSLIB]
```

```
PWRK$LMSRV.EXE to SYS$COMMON:[SYSEXE]
```

Restart ASV. These images can be removed in a similar way after stopping server after the migration procedure is complete.

5. Start HP OpenVMS CIFS.

6. Join the ASV Domain as a BDC

```
$ NET RPC JOIN "-S" SERVER "-W" WORKGROUP "-U" ADMINISTRATOR%PASSWORD
```

7. Vampire the accounts from the ASV PDC as shown.

```
$ NET RPC VAMPIRE "-S" SERVER "-W" WORKGROUP "-U" ADMINISTRATOR%PASSWORD
```

8. Validate the migration by using the pdbedit utility to see the accounts.

```
$ PDBEDIT "-Lw"
```

9. Shutdown the old PDC. Edit the SMB.CONF file to reset the parameter domain master = Yes so the CIFS server functions as a PDC.

**Note:** For account migration from an NT4 PDC follow the same procedure except step 4.

## Workaround for Incorrect Password

When migrating from an ASV PDC, user passwords are not correctly migrated. Following procedure provides the work around for this problem:

1. ASV needs to be shutdown to extract the user password information.

```
$ @SYS$STARTUP:PWRK$SHUTDOWN
```

2. A utility "exportpwd" is provided to dump the user and password information into a temporary text file "password\_dump.txt" in the working directory.

```
$ run exportpwd.exe
```

3. Now ASV can be restarted for its normal working.

```
$ @SYS$STARTUP:PWRK$STARTUP
```

4. Copy this temporary "password\_dump.txt" file to the target CIFS installation in ASCII mode.

5. A utility program is provided which reads the user password information and puts it in the CIFS password backend. To use this utility define a foreign symbol as shown below:

```
$ IMPORTPWD := "$<location-of-unpacked-migration-bck>IMPORTPWD.EXE"
```

```
$ IMPORTPWD <location-of-password-dump-file>password_dump.txt
```

For example,

```
$ IMPORTPWD SAMBA_ROOT:[TMP]PASSWORD_DUMP.TXT
```

## Limitations

1. Equivalent of UNIX group is not supported on OpenVMS.
2. Machine accounts will also be migrated, but with a limitation imposed by VMS SYSUAF on account names. For example, if the name contains characters such as '-' which are not legal in SYSUAF, then such account names will not be migrated.
3. Host name mappings are not migrated. Instead, a new SYSUAF account is created for every CIFS user with the same user name.
4. Printer Shares are not migrated.
5. "tdbsam" is the expected backend for the password workaround to work.

## Reference

<http://www.samba.org/samba/docs/man/Samba-Guide/ntmigration.html>